IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

AMPEX CORPORATION, *Plaintiff,* v. EASTMAN KODAK COMPANY, ALTEK CORPORATION, and CHINON INDUSTRIES, INC., *Defendants.*	C.A. No. 04-1373 (KAJ) **PUBLIC VERSION**

AMPEX CORPORATION'S OPENING BRIEF IN SUPPORT OF ITS MOTION FOR SUMMARY JUDGMENT THAT U.S. PATENT NO. 4,821,121 IS NOT UNENFORCEABLE DUE TO ALLEGED INEQUITABLE CONDUCT FOR FAILURE TO DISCLOSE THE QUANTEL DLS6000, QUANTEL PAINTBOX, OR AMPEX AVA SYSTEMS

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TABLE OF CONTENTS

TABLE OF CITATIONS

Other Authorities

NATURE AND STAGE OF THE PROCEEDINGS

Plaintiff Ampex Corporation ("Ampex") submits this brief in support of its motion for summary judgment that Ampex's U.S. Patent No. 4,821,121 ("the '121 patent") is not unenforceable due to alleged inequitable conduct for failure to disclose the Quantel DLS6000 still store system, the Quantel Paint Box, or the Ampex Video Arts system ("AVA") systems (collectively, the "alleged prior art systems"). Ampex filed this infringement action against Defendants Eastman Kodak Company and Altek Corporation ("Defendants") on October 21, 2004. On September 22, 2005, Defendants each submitted an Answer, alleging that applicants for the '121 patent failed to disclose the alleged prior art systems to the United States Patent and Trademark Office ("USPTO") during prosecution of the application that lead to the '121 patent (the "'121 patent application") and that such failure to disclose was done with an intent to deceive. However, discovery has now concluded, and has revealed no genuine issue of material fact as to the lack of materiality of the systems on which Defendants base their allegations of inequitable conduct.[1] Accordingly, Ampex moves for Summary Judgment that the '121 patent is not unenforceable for failure to disclose the alleged prior art systems. This is Ampex's Opening Brief in support of that Motion.

SUMMARY OF ARGUMENT

Defendants base their assertions of inequitable conduct for failure to disclose on three references: the Quantel DLS6000 family of still store systems, the Quantel Paint Box system, and the Ampex Video Arts system. In order to meet their burden of proof, defendants are required to show, by clear and convincing evidence, that these systems

[1] Defendants also have not proven intent to deceive. This motion is based, however, solely on the issue of lack of materiality.

were not disclosed to the USPTO during prosecution of the '121 patent application, were material to the patentability of the '121 patent, and were knowingly withheld from the USPTO during prosecution with an intent to deceive. However, none of these references is material, because they are at best cumulative of the art that was before the Examiner during prosecution of the '121 patent application.

More particularly, the art before the Examiner includes the prior art system described in the text of the application itself (this description being set forth in column 1 of the '121 patent), as well as the '776 patent cited in that description, and the Hugh Boyd article cited by the Examiner that describes the operation of the Quantel DLS6000. This cited art discloses all of the features which defendants have asserted render the DLS6000, PaintBox, and AVA material to the patentability of the '121 patent.

Although Defendants assert that the DLS6000, PaintBox, and AVA systems are "not cumulative of the prior art of record as they disclose claim limitations not found in the prior art of record," Defendants have yet to explain how the references on which they rely differ from the actual disclosure of the art of record. Nor have Defendants specified which claim limitations allegedly met by the alleged prior art systems (under Defendants' interpretations of the '121 patent claims) would not be met by the art before the Examiner (using those same interpretations).

Defendants' experts were likewise unable to show that the DLS6000, PaintBox, and AVA systems were not cumulative to the cited art. The report of Defendants' validity expert, Mr. Taylor, failed to compare the operation of the PaintBox and AVA to the art of record, and did not even contend that the DLS6000 is material. Indeed, Mr. Taylor, when confronted during cross-examination with the disclosure of the art on which

the Examiner relied, and in particular his own '776 patent, admitted that operations he identified as rendering AVA and PaintBox material were in fact disclosed in the '776 patent that was cited to the Examiner, thereby effectively admitting that PaintBox, AVA, and DLS6000 are cumulative of the cited art.

ARGUMENT

I. STATEMENT OF FACTS

A. Disclosures Of The References Cited During Prosecution

1. The Disclosure Of Column 1 Of The '121 Patent Describes The Most Relevant Prior Art

The '121 patent invention relates to a digital still store system that "provid[es] a high speed multi-image scan or sort capability." (Zado Ex. 1, col. 1, lines 13-14.) As described in the '121 patent, a digital electronic still store stores a "a plurality of frames of video images on relatively low cost magnetic disk storage." (*Id.* at col. 1, lines 15-17.) These still video image frames can be communicated from the disc storage to a frame store (typically comprised of random access memory, or "RAM"), from which data defining the image can be read out to provide for display of the image on a television or other monitor. (*Id.* at col. 1, lines 17-21.)

Given that the disk stores used in digital still store systems could store a large number of images, it was desirable to provide for a method by which a user could rapidly scan the images, in order to assist in identifying and selecting a desired image for display. As the '121 patent points out:

> The disk store is capable of storing a large library of single frame images and it is often desirable to generate a reduced size multiple image picture for editing or other purposes. For example, ... an editor may wish to view and compare several images at the same time for the purpose of selecting those images which will be used in a television broadcast.

(Zado Ex. 1, col. 1, lines 27-34.)

The '121 patent specification then sets forth a description of prior art relevant to the '121 patent inventions. In particular, the '121 patent describes an example prior art digital still store system for storing digital still images, and how such a system generated a multi-image display:

> [E]ach of the several images which are to be simultaneously displayed must first be read from the disk store as full size images and then reduced for insertion into the multi-image display. This process takes 1/4 to 1/2 second for each image and results in a delay of several seconds for the composite multi-image display. Such a time delay is at best disconcerting for a busy editor and precludes use of the editing features of the system during a real time broadcast.

(Zado Ex. 1, col. 1, lines 35-43)

Thus, the '121 patent explicitly discloses a prior art still store system, including a disk store for storing a large number of images, that could generate a browse screen by recalling a series (*e.g.*, 16) of images from the disk store, reducing them in size, and simultaneously displaying these reduced size images in a multi-image display (also referred to as a "browse" screen.) More particularly, in these prior art systems, whenever the user called for a browse screen, the system had to retrieve from disk sixteen full size images (for example), one after the other, reduce each of them to a one-sixteenth size version, and place each reduced size picture at its proper location on the screen. (*See id.*)

The '121 patent further identifies a particular example of such a prior art still store system: the system disclosed in U.S. Patent No. 4,302,776, "Digital Still Picture Storage System With Size Change Facility," to Taylor et al ("the '776 patent"). The '121 patent confirms that the digital still store system disclosed in the '776 patent could generate a multi-image browse screen in the manner described above. The '121 patent further identifies a suggestion made in the '776 patent as to an alternative method by

which digital still store systems could provide a multi-image browse display: by storing an array of reduced size images, generated as described above, as a single image frame back in the disc store. (Zado Ex. 1, col. 1, lines 54-56.) As the '121 patent points out, such an arrangement "has the effect of eliminating the time required to reproduce the array but precludes the flexibility of choosing or repositioning any desired images when recalling the array. Furthermore, the aforementioned time delays are encountered when assembling the original multi-image display." (Zado Ex. 1, col. 1, lines 57-61.)

In addition to the prior art still store systems disclosed above, the '121 patent refers to another type of system that employed a size reducer for reducing the size of still images to be displayed: the system set forth in U.S. Pat. No. 4,172,264, "Control Arrangement for Video Synchronizers," to Taylor et al (the "'264 patent"). As described in the '121 patent specification, the '264 patent is said to disclose "an arrangement in which joysticks may be used to selectively position video images on a television display," which system "requires full sized images to be accessed and then reduced in size as described above [in connection with generation of the prior art browse screen]." Thus, while not as relevant to the '121 patent invention, the '264 patent discloses the operations of accessing full size images, reducing them in size, and positioning the reduced size images in a frame store for display. (*See* Zado Ex. 1, col. 1, lines 44-49; Ex. 6, Fig. 1, and accompanying description.)

2. The Hugh Boyd Article Cited During Prosecution Explicitly Describes The Operation Of The DLS6000

The first reference cited by the Examiner during prosecution of the '121 patent application was an article entitled "The DLS6000: A New Digital Still Store Library System," by Hugh Boyd (the "Boyd article"). This article explicitly describes one of the

systems on which Defendants base their allegations of inequitable conduct – the Quantel DLS6000 series of digital still stores.[2] The DLS6000, as disclosed in the Boyd article, included a video input (video I/P) for receiving an input video signal, an analog to digital converter (ADC) for converting the data into to digital form, three frame stores (one video input/preview output frame store, and two frame stores dedicated to program output), a Winchester disk drive for storing "up to 340" still images, a disc formatter for formatting images to be stored on disc, a disc deformatter for deformatting images recalled from disk, and a data processor for performing processing, including size reduction, on still images. (Zado Ex. 2, pp. 47-48, Fig. 3.)

(a) The Boyd Article Discloses The Capture, Storing, And Recalling Of Still Images In The DLS6000

As disclosed in the Boyd article, during recording of still images input video is converted into digital format by the ADC, and passed to the input/preview frame store. At that point, the user can "freeze" the image in the frame store, capturing it from the video feed. The captured image is then read out from the frame store by a data processor section to reduce the data rate to a rate appropriate for storing the data on disc. The data for the image is then formatted for storage by a disc formatter, and stored on disc. (Zado Ex. 2, p. 48.)

During replay, images stored on disc are recalled, processed by the data processor, and sent to one of the three frame stores. More particularly, data is first passed

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[2] The term "DLS6000" refers generically to a family of still stores manufactured by Quantel, which family included the DLS6010, DLS6020, and DLS6030. (Zado Ex. 4 at AX022131.) Only the DLS6030 included the data processor block that implemented the size reduction functions in the Boyd article. (*Id.* at AX022138-39; AX022144.) For convenience, the term "DLS6000" is used herein to refer to any version of the DLS6000 that included the operation under discussion, including the DLS6030.

through the disc deformatter (which deformats the data), and then sent to a data processor. The data processor could then be used to perform size change on the images as programmed by the user, including as size reduction. After size change is performed, the data is then routed to one of either the preview frame store, or one of the two program (output) frame stores, depending on the selected use of the data. (Zado Ex. 2, p. 47, col. 1; p. 48, col. 2-3.)

As a consequence of the arrangement described above, in which the size reducer (*i.e.*, the data processor) is interposed between the disk store and the frame store, size change, such as size reduction, could only be performed when data was being read out from the disc store to the frame store:

> Data from the disc passes through a disc re-formatter, where the information is sorted out from its blocks, and then onto the data processor, where it is unpacked. At this point, the information is passed to one of the three frame stores available, and it is now that the size change mechanism operates.

(Zado Ex. 2, p. 48, cols. 2-3.)

(b) The Boyd Article Describes A Browse Feature Implemented In the DLS6000 To Review The Contents Of The Disc Store

The Boyd article describes a browse function that automatically generates a matrix of reduced size pictures, which can be used to browse the entire contents of the still store. While the Boyd article does not explicitly disclose how the Browse screen was generated, the only component disclosed for performing size reduction, the data processor, could only reduce the size of images when the images were recalled from disc. (Zado Ex. 2, pp. 47-48.) The Boyd article further explains that the browse screen can be used to identify full size counterpart images based on the reduced size image displayed on the browser screen: "The Ident display overlays the true Picture number when using

the 'browse' feature, so that the various chosen Pictures may be easily identified" (Zado Ex. 2, p. 48, col. 2.)

(c) The Boyd Article Discloses Manual Operations For Size Reducing Images And Assembling A Montage Of Reduced Size Images

The Boyd article discloses various uses for the data processor in the DLS6000 that are less than relevant to the '121 patent inventions than the browse function described above. For example, as described in the Boyd article, the user, via joystick control, could manually instruct the system to retrieve a full size image from the magnetic disk, pass that image through the data processor/size reducer, use the data processor/size reducer to reduce the size of the image, and then store the image in the frame store as part of a composite full size image. (Zado Ex. 2, p. 47, col. 1, col. 3.)

Moreover, the DLS6000 allowed the user to define an "edit list" of "slides," where each slide consisted of a full size image stored on disk, and associated size and position parameters. Using this editing function, "complete sequences of commands can be set up and stored for single button operations during a program. (Zado Ex. 2, p. 47, col. 3, Fig. 2; *see id.* at p. 47, col. 1, col. 2.) When a particular "slide" would then be selected or called up by the user, the full size image would be retrieved from disk, reduced in size, and positioned within the frame store (as programmed by the user) so that it would appear as part of a composite full size image at a corresponding position on the display. (*Id.*) The Boyd article further describes displaying "a series of the pre-chosen slides waiting in the stack." (*Id.*, p. 47, col. 2.)

Using the edit list feature, a user could also instruct the system to create a composite "montage" of reduced size images, by selecting, one at a time, the full size images stored on disk, reducing them as programmed, and positioning them, thus creating

a composite full size image. In contrast to the browse feature, which performs the operation automatically in response to the user's one command, this edit feature requires a number of manual programming steps to set up. (*Id.*, p. 47, col. 3 – p. 48, col. 1.)

The Boyd article further refers to "Digital re-recording of composite pictures" (Zado Ex. 2, p. 47, col. 3.) As described therein, once a composite image is created in the fashion described above (*e.g.*, by the user programming the system to recall a list of images from disc, programming the appropriate size change and position parameters for those images to be recalled, and initiating the list), that composite image may be recorded back onto the disk as a "complete new picture." (*Id.*)

3. The '776 Patent Discloses A Digital Still Store System Including A Browse Screen For Scanning Images Stored On A Disc Store

The '776 Patent, which as described above, is cited in column 1 of the '121 patent, describes a "digital still picture storage system for storing a plurality of video frames." As set forth in the "Summary of the Invention," the system described in the '776 patent includes, in the preferred embodiment, three frame stores, including one input frame store "for capturing a frame of video information in digital form in real time, and two output frame stores, a disc store "for receiving and storing digital data captured by said frame storage," and a size changer for "manipulating the size of the still picture when processed thereby relative to normal frame size." (*E.g.*, Zado Ex. 5, col. 1, lines 29-39, col. 11, lines 9-65, Figs. 18, 19.)

(a) The '776 Patent Also Disclosed The Capture, Storage And Recall Of Still Images

The basic recording functionality of the system disclosed in the '776 patent is set forth, in varying levels of detail, in Figures 1 and 4. As disclosed therein, the recording

system includes a camera that receives an image of a slide (*e.g.*, a still picture) or an image from a series of moving pictures. The output of the camera is converted from analog to digital format by analog to digital converter (ADC) 13, and stored in a frame store 14. Data is then transferred from the frame store 14, formatted for storage by converter 16 (also referred to as "process 4 to 2 convert" block), and stored in disc 18. (Zado Ex. 5, col. 2, lines 24-33, col. 4, lines 50-col. 5, line 9, Figs. 1, 4.)

The basic playback functionality of the system disclosed in the '776 patent is set forth, in varying level of detail, in Figures 2 and 5. As described therein, an image output from the disc is deformatted by processor 22 (also referred to as "process 2 to 4 convert" block) to "reconstitute the data to the form originally produced in the record system prior to processing," and then transferred to size change processor 23. Size change processor 23 is "capable of manipulating data to provide picture reduction or enlargement."[3] The image data output from the size change processor 23 is then sent to frame store 24. (Zado Ex. 5, col 3, lines 1-35, col. 5, lines 10-37, Figs. 2, 5.)

(b) The '776 Patent Disclosed The Generation Of A Browse Screen That Operated In The Manner Described In Col. 1 Of The '121 Patent

As the '776 patent recognized, the "disc store may hold several hundred separate pictures and the problem of examining the contents of the store in order to find a picture you need exists." (Zado Ex. 5, col. 3, lines 39-43.) To address this problem, the '776 patent describes the use of a "browse facility" to "provide a matrix of miniature pictures displayed together on the screen" (*Id.* at col. 3, lines 53-60.) When a user of the system

[3] The '776 patent also discloses that images could be passed through the size changer without actually changing the size of the image, by setting the gain of the size change to one (unity). (Zado Ex. 5, col. 8, lines 6-22.)

disclosed in the '776 patent would select the browse function, 16 (for example) full size pictures would be retrieved from disk, passed through the size reducer 23 (called "H+V Interpolate" in Fig. 18), reduced, and placed into one of the output frame stores (24, 124 or 125) for review. As the '776 patent explains:

> It is possible to use a fixed degree of compression [in the size change circuit] to generate a frame comprising a number of stored pictures to provide a browse or polyphoto facility as shown in FIG. 21. The pictures comprise a number of successive compressed images (*e.g.* 16, 25 or 36 say, as in this example) which are available for display together....
>
> The picture can be made to scroll vertically or horizontally as sequential pictures are compressed to provide visual access to the entire library of pictures stored. The multiple display of pictures is made by writing more than one compressed picture into the frame store 26.

(Zado Ex. 5, col. 12, lines 22-37; *see id.* at col. 12, lines 38-41.) Thus, as described in col. 1 of the '121 patent, the full size image comprised of the 4 x 4 (*e.g.*, as described in connection with the Fig. 21) embodiment of the '776 patent browse screen matrix of reduced size images would be created, one reduced size image at a time. (*Id.*; Zado Ex. 1, col. 1, lines 34-40, 50-54.) The '776 patent further explains that the browse screen could superimpose a "number or code" on each picture, allowing the user to select the desired picture by entering the corresponding number via a keyboard, or by touching the screen with a light pen. (Zado Ex. 5, col. 3, lines 53-66, col. 4, lines 45-49.)

(c) The '776 Patent Disclosed Manual Operations For Size Reducing Images Storing Size Reduced Images And Assembling A Montage Of Size Reduced Images

The '776 patent also describes various, less relevant uses of the size changer 23 in connection with the output and display of images. As set forth therein, the size changer is used to "create images which are expanded or reduced in size in comparison with the original picture stored on disc." (Zado Ex. 5, col. 3, lines 22-25.) The system disclosed

in the '776 patent allowed a user, after programming a desired size change for an image, to further vary the relative position of the resized image to be stored within the frame store and displayed within the normal [output] frame. (*Id.*, at col. 3, lines 25-31.) The '776 patent further disclosed that, in the described system, it was possible to "re-store the picture size in a compressed or enlarged form suitable for use in a sequence." (*Id.*, at 5, col. 3, lines 31-33.) Moreover, the '776 patent included a suggestion as to generation of a montage of reduced size images during creation of the library of images on the disc, and subsequent storage of such a montage as a new image frame. (*Id.* at col. 12, lines 41-43.)

The '776 patent also provides detail as to the structure of the size changer 23. As described in connection with Figs. 5 and 15, the size changer includes a decoder circuit for decoding the information read from the disc, a horizontal interpolation block, and a vertical interpolation block. (Zado Ex. 5, col. 7, lines 10-26, Figs. 5, 15.) The horizontal interpolation block (described in more detail in connection with Fig. 15) includes a data store RAM that stores image data received from the decoder, followed by the multiply, add and latch circuitry necessary to implement the size change. (Zado Ex. 5, col. 9, lines 33-col. 10, line 8.)

(d) The Embodiments Set Forth In Connection With Figs. 18 And 19 Of The '776 Patent Disclose Placing A Size Reducer Either On The Input Path Or Output Path Between The Disc Store And Frame Store

The '776 patent further discloses two detailed embodiments (Figures 18 and 19), which combine the record and playback functions described in Section I.A.3.a. *supra*, into a single system. (Zado Ex. 5, col. 11, lines 9-65, Figs. 18-19.)

The embodiment of Figure 18 includes a video input, an "ADC" (analog to digital converter) 14, a frame store 14, disk 18/20, Horizontal + Vertical (H + V) interpolate

circuit 23, and three frame stores: one input/preview frame store 24, and two frame stores, 124 and 125, dedicated to output. Through image capture, a number of full size images would be stored onto disk 18/20. When the user would select the browse function using the system of Figure 18, up to 36 (for example) full size pictures were retrieved from disk, passed through the size changer (H+V Interpolate circuit 23 in Fig. 18), reduced, and placed into one of the output frame stores (24, 124 or 125) for review. (*See* Zado Ex. 5, col. 11, lines 9-34, col. 12, lines 22-41.) Similarly, during playback of an image from the disc 18/20, the image would pass through the size changer (where the image could be reduced in size, depending on the effect programmed by the user) prior to storage in the frame store. (*See id.*)

In addition, the '776 patent described an alternative embodiment in Figure 19, which discloses a frame store 14/24 that receives a digital video image, a magnetic disk 18/20 in which an image can be stored, and a size change circuit 23 that is disposed between the frame store and the magnetic disk. As further described therein:

> It would also be possible to provide size change prior to converter 16 as now shown in FIG. 19 by moving the position of processor 23 to provide an increase or decrease in picture size relative to normal frame size prior to storage on disk 18 should this be desired.

(Zado Ex. 5, col. 11, lines 39-47.) Thus, the system disclosed in Figure 19 of the '776 patent places the size reducer in the input path between the frame store and the disk store (as opposed to the output path between the disk store and frame store, as is disclosed in Figure 18). This embodiment could provide for a reduced size image to be generated and stored on disk using only the amount of memory necessary for the reduced size image. (*Id.*; *see Zado Ex.* 3, Taylor 4/26/06 Tr. p. 131, line 20-p. 122, line 9.)

B. The Operation Of The Systems On Which Defendants Base Their Contentions

1. The Operation Of The DLS6000 Is No More Relevant Than The DLS6000 Disclosed In The Boyd Article

The DLS6000 still store system operates in the same way as disclosed in the Boyd article, and in many respects is the same as the disclosure of the Figure 18 embodiment of the '776 patent. The DLS6000 included: a video input ("video I/P") for receiving an input video signal; an input processing block including an ADC for converting the data into to digital form; three frame stores (one encoded frame store for input/preview, and two decoded frame stores dedicated to program output); a Winchester disk drive for storing a number still images; a disc sequencer, SMD disc interface, and disc data buffer card for formatting/deformatting data to be sent to/read from the disc; and a size reduction block including a filter card for size reducing images recalled from the Winchester disc. (Zado Ex. 7, EKC00142860-61; *see* Zado Ex. 8, AX022123-24, AX022128; Zado Ex. 4, AX022134-25, AX022144.)

(a) The DLS6000 Captured, Stored And Recalled Images In The Same Way As Disclosed In The Boyd Article And The '776 Patent

With the exception that the names of the circuits that perform size reduction and disc formatting are more particularly specified, the general operation of the DLS6000 is identical to the operation as described in the Boyd article. (*See* Section I.A.2.a., *supra*; *compare* Zado Exs. 4 and 8 *with* Zado Ex. 2.) During recording of still images, an input video signal is converted from analog to digital format by an ADC, and passed to the input/preview frame store. At this point, the user can freeze the image in frame store, capturing it from the video feed. The captured image can then be read out from the frame

store, formatted by the disc data buffer card and disc interface card for storage, and stored on disc. (Zado Ex. 4, AX022134-35; Ex. 7, p. 27; Ex. 8, AX022123-24; Ex. 9, p. 8.)

During replay, image data stored on disc is recalled, passed through the disc interface and disc data buffers (which deformat the data), sent through the filter card (where the image can be resized, depending on whether the browse mode was selected, or the user had programmed a size change) and stored in the appropriate frame store. (*See* Zado Ex. 7, p. 27, Zado Ex. 4, AX022138-39, AX022144; Zado Ex. 8, AX022124, 128.)

In the same way as described in the Boyd article, as a consequence of the arrangement described above, in which the filter card is interposed between the disc store and frame store, size change, such as size reduction, could only be performed when data was being read out from the disc store to the frame store. (*See id.*) Indeed, the filter card, which performs the size reduction, could only receive image data from the disk; thus, it was not possible to reduce an image using the DLS6000 without first storing that image on disk. (*Id.*, Zado Ex. 10, ¶ 151.)

(b) The Browse Function In The DLS6000 Operated In The Some Way As The Browse Function Disclosed In The '776 Patent And Col. 1 Of The '121 Patent

The DLS6000 had a browse feature for browsing images stored on disk, which operated in the same manner as described and distinguished in column one of the '121 patent. During browse, a series of full size images are recalled from the disc store, deformatted by the disc deformatter, transferred to the disc data buffer card, size reduced by the filter card, and then stored in the frame store as a multi-image display. (*See* Zado Ex. 4, AX022139; Ex. 8, AX022122; Ex. 7, p. 27, EKC000142860-61, pp. 75-76.)

(c) The DLS6000 Included The Same Manual Programming Methods For Size Reducing Images Stored On Disc As Are Disclosed In The Boyd Article And The '776 Patent

In the same way as described in the Boyd article and Figs. 5 and 18 of the '776 patent, the DLS6000 could generate reduced size images by recalling a full size image from disc, and passing it through the size reducer (*i.e.*, the filter card) on its way from the disk to the frame store. (Zado Ex. 7, p. 27, EKC000142860-61, pp. 75-76; *see* Zado Ex. 4, AX022138, AX0272144; Zado Ex. 8, AX022121, AX022128; Zado Ex. 9, pp. 13-14.)

The DLS6000 also included a function referred to as "Stack/Don't Care," which required the operator of the DLS6000 to program size changes to be performed on a "stack" of images. (Zado Ex. 9, pp. 12-13, 16.) More particularly, the Stack/Don't Care function allowed a user to identify a set of images on the disc store as a stack, program a set of "effect parameters," *e.g.*, size and positioning to a first image in a stack of images selected by the user to be recalled from disc, and then apply the same effects either to the next image in the stack, or to all of the images in the stack. (*Id.*) Like the "edit list" function described in the Boyd article, this operation requires a user to (1) identify images to be assigned to a stack, and (2) program effect parameters on one or more of those images (*i.e.*, it likewise requires a set of manual steps be performed by the user of set up effects, such as the size reduction). (*See id.*; Zado Ex. 2, pp. 47-48.)

Moreover, once a desired effect (such as size reduction) was performed on a given image, and that image was stored in the frame store, if the user wished to save anything back into disc store, the user would be required to interrupt the playback of the stack, and manually perform the saving of whatever composite picture had been created during playback. (Zado Ex. 9, p. 16; Ex. 3, Taylor 4/28/06 Tr. p. 126, line 20-p. 127, line 4.)

(d) Mr. Taylor Testified That The Same Operations That Allegedly Render AVA And PaintBox Material Were Disclosed By The '776 Patent

During his deposition, Defendants' expert, Mr. Taylor, was questioned as to the disclosure of the '776 patent, and whether the same operations on which he bases his opinions as to the DLS6000 anticipating the asserted claims of the '121 patent are also disclosed by the '776 patent. Mr. Taylor admitted that the following operations on which he bases his opinions as to the DLS6000 are also disclosed by the '776 patent:

(i) Capturing Full Size Images

> Q. On Paragraph 146, on Page 48 you state that, "The 6030 could receive full-sized video images from an external source, such as a television broadcast or video camera. The input full-sized image was stored in the preview" ... That's also shown in the Taylor patent, right, the '776 patent? For example, Figure 1, Item 12, is a camera, which is an external source, right?
>
> A. Item 12 is a camera; that's correct. I was just pondering the sentence, the input which you also read, which was "The input full-sized image was stored in preview frame store for display." I would add the caveat that I have in previous answers, that the arrangement of Figure 19 is different to the 6030.

(ii) Generating Reduced Size Images From Full Size Images

> Q. On Paragraph 154, you talk about – that's on page 50 – you talk about the DLS 6030 generating reduced-size images corresponding to full-sized images. That could also be done with the '776 disclosure, correct? You could generate reduced-size images corresponding to full-size images in the manner that you're using that term in Paragraph 154?
>
> A. The 6030 could generate from a full-sized image and allow a lower resolution version of that full-sized image, and the '776 does describe capability of doing that.

(iii) Transferring Reduced Size Images To RAM

> Q. In Paragraph 156 you talk about transfers reduced-size images to random access memory. The '776 system that's disclosed in the patent is able to do that, correct?

A. Yes, the '776 shows the ability to –

Q. And in Paragraph 157

A. Shows the ability to transfer a reduced-size image to random access memory.

(iv) Direct Transfer Of Images From The RAM To The Size Reducer

Q. In Paragraph 157 you discuss the ability of the 6030 to directly transfer from random access memory to size reducer and vice versa. The system disclosed in the '776 also has this capability, correct, to the same extent that the 6030 did?

A. I don't think the '776 necessarily shows the direct transfer.

Q. Why not?

A. It does, you're right.

(v) Storing Of Reduced Size Images On Disc

Q. Then Paragraph 158 talks about storing reduced-size images on disk. Subject to the caveat that perhaps we disagree as to exactly what's being stored on disk, isn't it correct that the '776 Figure 18 embodiment could store reduced-size images on the disk to the same extent that the 6030 could?

Q. Right?

A. The '776 does disclose. Yes, it does.

(vi) Recalling Either Full Or Reduced Size Images From Disc To RAM

Q. In Paragraph 160 you talk about recalling either the full-sized image or the reduced-size image from disk to random access memory. The systems disclosed in the '776 can do that as well, correct?

A. Sorry, what paragraph are you on?

Q. 160.

A. Yes, it does.

(vii) Transfer Of Images Directly From Disc To RAM

Q. And 161 talks about transferring directly from disk to random access memory, and you say that the 6030 could recall images from disk, transfer directly to the disk data buffer, which is random access memory. Likewise, isn't that correct that in Figure 15, image data was transferred directly from the disk to the buffer shown on Figure 15 called the data store ram?

A. Yes.

Q. And in 162 you talk about the alternative way that the 6030 met this limitation by setting the size reducer at unity, in which case it acted like a piece of wire. That's how the size reducer in the '776 worked also, correct?

A. Yes. If you say element 23 to unity, it would go from the disk to the frame stores.

Q. On what figure?

A. Figure 18 and Figure 19.

Q. Then in paragraph –

A. Could I just qualify that. In Figure 19 it's used in the size change, and my answer was assuming the size change was 23 in the position where it is after the disk.

(viii) Storing Full And Reduced Size Images In RAM Simultaneously

Q. In Paragraph 163, you talk about storing the full- and reduced-size images in random access memory simultaneously. Is it correct that the system of the '776 could do that in the same manner that the 6030 could do it?

A. Yes, it could.

Q. And is it correct that 164 also can be done in the '776 the same way you describe for the 6030?

A. The '776 discloses the ability to have a full-size image in one frame store and a reduced-size image in the other frame store.

(ix) Generating A Mosaic Using The Browse Function

Q. 166 you're talking about storing a mosaic. I take it you would agree, then, that the '776 patent does disclose that functionality?

A. Yes, I would.

(x) Storage Of Reduced Size Image To Disk Using Memory Corresponding To The Reduced Size Image

Q. Indeed, Figure 19 discloses an embodiment which actually stores only the data specifically associated with a reduced-size image on disk without any additional data which you've referred to as extraneous data in the past; isn't that right?

A. I just want to make sure what it actually said in Figure 19. I can't find Figure 19 in the description.

Q. It's described in Column 11.

A. Thank you.

Q. Lines 35 to 46.

A. Yes, you're right. Figure 19 does disclose putting the size reducer before storage on disk.

(Zado Ex. 3, Taylor 4/28/06 Tr. p. 111, line 11 – p. 112, line 1, p. 127, lines 9-16, p. 130, line 15 – p. 134, line 11, p. 135, lines 7-10.)

2. The Operation Of PaintBox Is No More Relevant Than The Disclosure Of The Boyd Article, The '776 Patent, Prior Or The Art Cited In Column 1 Of The '121 Patent

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(a) The PaintBox Captured, Stored, And Recalled Images In The Same Way As Disclosed In The Boyd Article And '776 Patent Figs. 4, 5 And 18

In the PaintBox, like in the DLS6000 disclosed in the Boyd article and the system disclosed in the '776 patent,

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(b) The Browse Function Of The PaintBox Operated In The Same Way As The Browse Function Disclosed In The '776 Patent

The Paint Box included a browse function for browsing images stored on the disc. The browse function of the PaintBox is performed in the same way as disclosed in the

'776 patent and col 1 of the '121 patent:

REDACTED

(c) The Manual Programming Methods In The PaintBox For Size Reducing Images Stored On Disc Are Less Relevant Than The Disclosures Of The Boyd Article And '776 Patent

The Quantel Paint Box could also generate reduced size images in a way similar to that of the system disclosed in the '776 patent and DLS6000 as described in the Boyd article, but which required even more steps by the user to take place. More particularly,

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[4]

3. The Operation Of AVA Is Less Relevant Than The Disclosure Of The Boyd Article Or The '776 Patent

REDACTED

[4] Ampex contends that the manual scheme for cutting out a reduced size picture from the composite image and saving a cut-out (as well as the cut and past procedure in AVA, *see* Section I.B.3.b, *infra*) is not the storing of a reduced size image called for by the '121 patent claims. The result of this sequence of operations is that, the user has merely mimicked saving a reduced size image, but in fact has only saved a portion of a full size composite image. However, even assuming this were operation properly characterized as generating and storing a reduced size image, as set forth in Sections III.B, III.C.3, *infra*, this operation is less relevant than the disclosure of at least Fig. 19 of the '776 patent.

(a) AVA Recalled Images From Disc In The Same Way As Disclosed In The '776 Patent

As with the systems disclosed in the '776 patent and the Boyd article,

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(b) The Manual Programming Methods In AVA For Size Reducing Images Stored On Disc Are Less Relevant Than The Disclosures Of The Boyd Article And The '776 Patent

AVA could generate a reduced size image using a series of manual steps similar to the Paint Box. More particularly,

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II. APPLICABLE LEGAL STANDARDS

A. The Summary Determination Standards

The standard for summary judgment in a patent case is the same as in any other case. *Union Carbide Corp.* v. *Am. Can Co.*, 724 F.2d 1567, 1571 (Fed. Cir. 1984).

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[5] The Taylor Report asserts that, in AVA, the full size image need not be sent from the frame store to the disk before size reduction. The only support for this position identified in the Taylor Report is the deposition testimony of Junaid Sheikh at pp. 66-68. (Zado Ex. Ex. 10, ¶ 122.) As Mr. Taylor admitted in deposition, the cited pages of the Sheikh Deposition include no such testimony in support of his position. (*See* Zado Ex. 16, Sheikh 5/06/05 Tr. pp. 66-68; Zado Ex. 3, p. 94, line 1 – p. 95, line 9.)

REDACTED

Summary judgment is appropriate where there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); *Kegel Co.* v. *AMF Bowling, Inc.*, 127 F.3d 1420, 1425 (Fed. Cir. 1997).

To defeat a motion for summary judgment, the non-moving party must "do more than simply show that there is some metaphysical doubt as to the material facts." *Matsushita Elec. Indus. Co.* v. *Zenith Radio Corp.*, 475 U.S. 574, 586-87 (1986). The non-moving party must set forth specific facts that there is a genuine issue for trial." Fed. R. Civ. P. 56(e). "Where the record taken as a whole could not lead a rational trier of fact to find for the non-moving party, there is no 'genuine issue for trial.'" *Matsushita*, 475 U.S. at 587 (citation omitted). Accordingly, a mere "scintilla of evidence" in support of the non-moving party is insufficient for a court to deny summary judgment. *Anderson* v. *Liberty Lobby, Inc.*, 477 U.S. 242, 252 (1986). If a non-moving party has the burden of proof regarding an essential element, the non-moving party must make a sufficient showing with respect to that element, or else the moving party is entitled to judgment as a matter of law. *Celotex Corp.* v. *Catrett*, 477 U.S. 317, 323 (1986).

B. Summary Of Law Regarding Inequitable Conduct

As the Federal Circuit has often stated, an accused infringer's burden in establishing an allegation of inequitable conduct is a heavy one:

> "Inequitable Conduct" is not, or should not be, a magic incantation to be asserted against every patentee. Nor is that allegation established upon a mere showing that art or information having some degree of materiality was not disclosed. To be guilty of inequitable conduct, one must have intended to act inequitably. Thus, one who alleges a "failure to disclose" form of inequitable conduct must offer clear and convincing proof of: (1) prior art or information that is material; (2) knowledge chargeable to the applicant of that prior art or information and of its materiality; and (3) failure of the applicant to disclose the art or information resulting from an intent to mislead the PTO.

FMC Corp. v. *Manitowoc. Co.*, 835 F.2d 1411, 1415 (Fed. Cir. 1987) (footnote omitted); *see Abbott Labs* v. *Torpharm, Inc.*, 300 F.3d 1367, 1379-80 (Fed. Cir. 2002).

In performing such an analysis, the court must first determine whether the withheld reference satisfies a threshold level of materiality. The court must also determine whether the applicant's conduct satisfies a threshold showing of intent to mislead. Only if these threshold levels are met does the court balance the issues of materiality and intent to determine if inequitable conduct has occurred. *Halliburton Co.* v. *Schlumberger Tech. Corp.*, 925 F.2d 1435, 1439 (Fed. Cir. 1991); *see Tegal Corp.* v. *Tokyo Electron Am., Inc.*, 257 F.3d 1331, 1349 (Fed. Cir. 2001).

"The trial court has discretion to determine inequitable conduct." *Halliburton,* 925 F.2d at 1439-40; *see Tegal*, 257 F. 3d at 1349. A grant of summary judgment dismissing an allegation of inequitable for lack of materiality is appropriate where the party making the allegation did not offer evidence or legal argument whereby the clear and convincing standard could be met. *Scripps Clinic & Research Found.* v. *Genentech, Inc.*, 927 F.2d 1565, 1582 (Fed. Cir. 1991); *accord, Abbott Labs.*, 300 F.3d at 1379-80; *Advanced Cardiovascular Sys., Inc.* v. *Medtronic, Inc.*, 265 F.3d 1294, 1306-07 (Fed. Cir. 2001).

1. Standard Of Materiality

Materiality is evaluated in view of 37 C.F.R. § 1.56, which states that a reference is material if there is "substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent." 37 C.F.R. § 1.56. However, a patentee has no obligation to disclose an otherwise material reference if the reference is cumulative of or less material than those already before the Examiner. *Tap Pharm. Prods., Inc.* v. *Owl Pharms. L.L.C.*, 419 F.3d 1346, 1351 (Fed. Cir. 2005)

(affirming district court's finding that art was cumulative, and therefore not material); *Halliburton*, 925 F.2d at 1440 (same); *Specialty Composites* v. *Cabot Corp.*, 845 F.2d 981, 991 (Fed. Cir. 1988) (same). In order to determine whether a reference is cumulative, the relevant inquiry is whether the reference discloses subject matter relevant to the examination of the application at issue that is not taught by the cited prior art. *Regents of Univ. of Cal.* v. *Eli Lilly & Co.*, 119 F.3d 1559, 1574-75 (Fed. Cir. 1997), *citing Scripps*, 927 F.2d at 1582.

III. ANALYSIS

A. The Operation Of The DLS6000 As Set Forth In Defendant's Answers Is Cumulative Of The Hugh Boyd Article, The '776 Patent, The '264 Patent And Column 1 Of The '121 Patent

As described in Sections I.A.1 - I.A.4, *supra*, and as Mr. Taylor admitted in deposition, the operations identified by Defendants in their Answers and discovery responses as rendering the DLS6000 material (*see* Zado Ex. 24; D.I. 16, ¶¶ 33-41), were also disclosed in the Hugh Boyd article, the '776 patent, the '264 patent, and column 1 of the '121 patent. The cited art disclosed the same methods of: (1) capturing a video image by receiving a video signal, performing analog to digital conversion, and storing the video image in the frame store; (2) creating a reduced size lower resolution image from the captured full size image by storing the full size image in disc store, recalling the image from disc, passing it through the size reducer, and storing the reduced size image so generated in frame store; (3) storing both a full size image and a reduced size image in random access memory by, for example, recalling one of the images from the disc store, and storing the recalled image in one frame store, while the other image remained in a second frame store; (4) recalling a full size image or a reduced size image from disk to random access memory, such as is done in playback mode or browse mode; and (5)

displaying multiple reduced size images, either in a browse mode or as a montage that was created by a series of user operated steps. (Zado Ex. 3 Taylor 4/26/06 Tr.; Zado Ex. 3, Taylor 4/28/06 Tr. p. 111, line 11 – p. 112, line 1, p. 127, lines 9-16, p. 130, line 15 – p. 134, line 11, p. 135, lines 7-10; *see generally, id.* at p. 111, line 11 – p.135, line 14.) Indeed, the Boyd article which was explicitly disclosed to the USPTO described all of the relevant functionality of the DLS6000. *See* Sections I.A.2, I.B.1. Thus, the DLS6000 is cumulative of the art disclosed to the USPTO during prosecution of the '121 patent application. Indeed, even the Taylor Report does not assert that the DLS6000 is not cumulative of the art disclosed to the Examiner.

B. The Operations Of AVA And PaintBox As Set Forth In Defendant's Pleading Are Cumulative Of The Hugh Boyd Article, The '776 Patent, And Column 1 Of The '121 Patent

As described in Sections I.A.1. – I.A.4. and III.A., *supra*, the operations alleged by Defendants as rendering AVA and PaintBox material to the prosecution of the '121 patent were also explicitly disclosed in both the '776 patent and the Boyd article, including: (1) capturing a video image; (2) creating a reduced size lower resolution image from the captured full size image; (3) storing both the full size image and the reduced size image from disk to random access memory; (4) recalling the full size image and the reduced size image from disk to random access memory; and (5) displaying multiple reduced size images. Indeed, Mr. Taylor admitted as much in his deposition. (*See* Section I.B.1.(d), *supra.*) Thus, AVA and PaintBox are likewise cumulative of the art that was before the Examiner during prosecution of the '121 patent application.

In fact, the operations of AVA and PaintBox on which defendants rely, (such as cutting and pasting of images) are even less material to the '121 patent inventions than the art disclosed to the Examiner. For example, **REDACTED**

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(*See* Sections I.A.3.(c), I.B.1(c), I.B.2.(c), I.B.3.(b), *supra*.) Such a time consuming process is diametrically opposed to the teachings and intent of the '121 patent inventions, which are related to a "high speed, multi-image scan or sort capability." (*See* Zado Ex. 1, col. 1, lines 13-14.) Moreover, it is less relevant than the disclosure of the Fig. 19 embodiment of the '776 patent, in which size reduced images could be generated and stored to disc, without the need to engage in the series of cut and paste steps that merely stimulate storing a reduced size image. (*See* Section I.A.3.c.-d.)

C. The Operations Characterized By Mr. Taylor As "Not Being Disclosed" To The USPTO During Prosecution Of The '121 Patent Were, As He Admits, Disclosed By At Least The '776 Patent

The expert report of Mr. Taylor alleges

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This opinion in the Taylor Report is based upon a flawed premise: the statements made by Ampex in the prosecution history were not directed to the prior art as a whole, but each distinguishing statement on which Mr. Taylor relies was made with respect to one reference. From this (mis)reading of the file history, the Taylor Report extrapolates that, because Ampex asserted that the "prior art" didn't disclose a given functionality, and in Mr. Taylor's opinion, AVA and PaintBox do disclose such functionality, then

AVA and PaintBox must be "material, non-cumulative" prior art. In so doing, the Taylor Report never compares the operation of AVA or PaintBox to the cited prior art to demonstrate that their disclosures are, in fact different. The Federal Circuit has criticized this very type of analysis which the Taylor Report employs:

> [Defendant's] argument alleges that "[patentee] distinguished prior art by telling the PTO that no reference applied two separate frequencies to two different electrodes," but [defendant] asserts that Figure 3 of the NTT reference shows this feature. Having reviewed the prosecution history that [defendant] cites, we note that [defendant] overstates the case because [patentee] distinguished only a single reference with this argument. Regardless, [defendant]'s argument assumes that which it seeks to prove-that the NTT reference is not cumulative.

Tegal, 257 F.3d at 1350; *see Regents*, 119 F.3d at 1574-75 (identifying relevant comparison as between *disclosure* of cited art and allegedly material reference).

Indeed, by divorcing the statements made by Applicants during prosecution from their context, the Taylor Report identifies the same operations that were being distinguished by Applicants in the prosecution history as rendering AVA and PaintBox material. When finally asked to characterize the disclosure of the cited art, Mr. Taylor admitted in deposition that the cited prior art, and in particular the '776 patent, disclosed the very features that the Taylor Report relies upon for its assertion that the AVA and PaintBox are not cumulative.

1. The "Direct Transfer" Limitation

(a) The Claim Limitation Regarding Direct Transfer Of Images Was Added To Distinguish The Claimed Invention From A System That Performed Size Reduction Between The Frame Store And Disc Store

Mr. Taylor first asserts that Ampex "argued that the alleged invention was patentable over the prior art because the '121 invention disclosed the direct transfer of images from disc to random access memory," citing to Paper 30 at p. 12. (Zado Ex. 10,

¶¶ 185, 200; Zado Ex. 25, ¶¶ 4-7.)[6] However, when this portion of the file history is viewed in its entirety, there can be no dispute that the statements were made strictly in the context of distinguishing the '121 patent from the '776 patent. As stated therein:

> [The claims] are not fully met *by the cited reference to Taylor et al.* For example, Claim 18 recites, inter alia, a random access memory means (frame store 22) for individually storing ... succession of full size images ... and a corresponding reduced size version thereof at said second resolution (underlining added). *Taylor et al fails to describe and does not intend* the storage of both a reduced size and a full size image in his frame store (14/24 or 124/125) in the manner of applicant. In fact, any size reduction, and thus reduced size image, is made on the full size image only at the time the latter is transferred from the disk storage (18/20) to the frame store (24/124/125) as depicted in FIG'S 5, 18 and 19, or from the frame store to the disc storage as depicted in FIG. 19. Applicant's invention on the other hand, as described and claimed, provides image reduction via his size reducer (26) coupled only to the frame store (22), and which receives the full size image only from the frame store whenever there is no reduced size image, and which then returns the reduced size image directly back to the frame store for storage thereof simultaneously with the corresponding full size image.
>
> * * *
>
> In any event, *Taylor et al fails to store both the full size image and its reduced size version in his frame store as described and claimed by applicant.*
>
> * * *
>
> Accordingly, Claims 18, 19 and 23 are variously amended herewith to *further clarify the language thereof over the reference to Taylor et al.* Claim 18 recites inter alia; a "random access memory means for ... storing video pixel data representing ... full size images ... and a corresponding reduced size version thereof at said second resolution"; bulk memory means which stores both size images and which transfers either size of the

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[6] Mr. Taylor's assertion in ¶ 6 of his Supplemental Report (Zado Ex. 25) is undermined by his misreading of the file history. More particularly, his assertion that "Ampex could not have argued that the inclusion of the direct transfer of images from random access memory made its invention patentable over the prior art" is readily belied by the fact that Ampex did not so argue; Ampex argued that direct transfer of images was part of what distinguished the '121 inventions from the '776 patent, whose arrangement of disc, size reducer, and frame store precluded such types of transfers. *See* Zado, Ex. 19, pp. 9-12.

> images directly back to the random access memory means, with no other circuit there between; and means for generating the reduced images from the full size images and returning both directly back to the contents of the random access memory means. *Taylor et al fails to teach the above features of storing both image sizes simultaneously in the random access memory, the direct transfer of images between the disc storage and random access memory, or the transfer of images directly between the size reducer and only the random access memory.*
>
> Likewise, Claims 19 and 23 also recite the above features in differing language and terms, and *thus are not anticipated by Taylor et al* for the same reasons given above.

(Zado Ex. 19, Paper 30, pp. 9-12.)

As Applicants explicitly set forth in the paper 30 (on which the Taylor Report relies), in both Figures 18 and 19 of the '776 patent, the size reducer is interposed between the frame store and disk. As a result, while the system disclosed in the '121 patent could store a reduced size image in random access memory prior to storing the full size image in the disk store, the system disclosed in the '776 patent, in order to store both full size and reduced size image on disc, would need to first store a full size image on disc, recall it from disc, pass it through the size reducer, store it in the frame store, and transfer the reduced size image back to disc store. (*See* Sections I.A.3.(b)-(d), *supra.*) Thus, in these arguments expressed in Paper 30, and in using the terms "direct" or "directly," applicants distinguished cited art (the '776 patent) in which size reduction occurs when full size images are being sent to or read from disk store. (*See* Zado Ex. 19, Paper 30, pp. 9-12.)

(b) The Operation Mr. Taylor Identifies As "Transferring Images Directly From Frame Store To Disc Store" Was Disclosed In The '776 Patent, And Is Equally Distinguishable From The '121 Patent Inventions

The expert report of Mr. Taylor asserts that the AVA and PaintBox systems had the ability to directly transfer images from disk to random access memory. However, the

operations identified by Mr. Taylor as being "direct" transfers are no different than the types of transfers set forth in the '776 patent, in particular, the embodiments disclosed in connection with Figures 18 and 19.

As described above, the direct transfer of both full size images and reduced size images from disk to random access memory is one of the limitations added to the '121 claims to distinguish the '121 patented invention from Figs. 18 and 19 of the '776 patent. In such an arrangement, size reduction must take place when data is being read from or written to the disk store, as the size reducer is interposed between the frame store and disc store. (*See, e.g.*, Zado Ex. 5, Figs. 18, 19.)

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as Mr. Taylor admits, is disclosed in the '776 patent. (Zado Ex. 3, Taylor 3/24/06 Tr, p. 133, lines 3-10.; Zado Ex. 5, col. 8, lines 6-22.) Therefore,

under even Mr. Taylor's reading of the direct requirement, the AVA and PaintBox are the best cumulative of this aspect of the '776 patent disclosure. *See Rolls-Royce, Ltd.* v. *GTE Valeron Corp*, 800 F.2d 1101, 1106-07 (Fed. Cir. 1986) (finding that, where two references disclose the same limitation, structural differences between how those two references meet the limitations cannot render one reference more material than the other.)

(i) Use Of The Disc Data Buffer In The PaintBox And DLS6000 During Transfer Of Data From Disc To Frame Store Is No More Relevant Than The Disclosure Of Fig. 18 Of The '776 Patent

Defendants have alleged that random access memory within the disc data buffer could store image data, and that, when data was transferred from disc to the disc data buffer, on its way to the size reducer this constitutes a direct transfer from disc to RAM. As an initial matter, this assertion as to the use of RAM in the disc data buffer is directly controverted by the DLS6000 Service Manual, which states that the random access memory of the disc data buffer was not used during normal transfer of image data from disk to frame store, but rather only was used for storing, *e.g.*, track information, to facilitate the computer reading and writing data from or to the disk. (*E.g.*, Zado Ex. 7, pp. 28, 57.) Even assuming the disc data buffer stored image data during transfers from disc to frame store, such operation is no different than the transfer of data from disc to the data store RAM in Fig. 15 during recall of an image from the frame store in one of the embodiments of the '776 patent. More particularly, in the embodiment of Fig. 18, when an image was recalled from disc, the data was required to pass from disc store through the size changer 23, and in particular to the data store RAM within the size changer 23, prior to size reduction. (Zado Ex. 5, Figs. 15, 16, col. 9, line 32-col. 10, line 38.) Blocks of data for the image would be "held" by the data store RAM prior to the size reduction.

(Zado Ex. 5, col. 9, lines 41-51.) Mr. Taylor himself characterized this operation in his understanding, as a direct transfer from a disc to RAM. (Zado Ex. 3, p. 132, line 18 – p. 133, line 10.)

(ii) The Transfer Of Image Data In AVA Is No More Material Than The Disclosure Of The '776 Patent

The Taylor Report refers to :

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2. Simultaneous Storage Of Full And Reduced Size Images In RAM

(a) The Claim Limitation Regarding Simultaneous Storage Of Full And Reduced Size Images In RAM Was Also Added To Distinguish The Claimed Invention From The '776 Patent Which Performed Size Reduction Between The Frame Store And Disc Store

The Taylor Report next asserts that Ampex "argued that the alleged invention was patentable over the prior art because the '121 invention disclosed the simultaneous

storage of full and reduced size images in RAM," again citing to Paper 30 at p. 12. (Zado Ex. 10, ¶¶ 19, 203.) Again, when this portion of the file history is viewed in its entirety, the statements were made strictly in the context of distinguishing the '121 patent from the Taylor '776 patent. (*See* Zado Ex. 19, Paper 30, pp. 9-12.)

As set forth in the prosecution history at paper 30, the simultaneity requirement in the '121 claims was added to distinguish Figures 18 and 19 of the '776 patent, which required either the full size image be stored on disk prior to generation and storage of the reduced size image (Fig. 18), or required generation and storage of the reduced size image onto the disk before it could be stored in frame store (Fig. 19). (*See* Zado Ex. 19, Paper 30, pp. 10-11.)

(b) The Operation Mr. Taylor Identifies As "Simultaneous Storage Of Images In RAM" Was Disclosed In Figures 18 And 19 Of The '776 Patent And Are Equally Distinguishable From The '121 Patent Inventions

Mr. Taylor asserts

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However,

the operations identified by Mr. Taylor as being simultaneous storage of full and reduced size images in RAM are no more relevant to the '121 patent claims than the embodiments disclosed in connection with Figures 18 and 19.

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Indeed, the operation that the Taylor Report contends renders Paint Box material

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is disclosed in the '776 patent itself:

> By further expansion of the system to allow a sequence of two separate still pictures to be assembled into two separate digital stores in real time, a digital process can then be provided which allows cross-fading to occur from one to the other stores.

(Zado Ex. 5, col. 4, lines 12-24; *see id.* at col. 11, lines 35-65.) When asked about simultaneous storage of full and reduced size images during his deposition, Mr. Taylor admitted that the '776 patent did disclose such operation. (Zado Ex. 3, Taylor 4/28/06 Tr. p. 133, line 8 – p. 134, line 11.) Thus, under even Mr. Taylor's reading of the direct requirement, AVA and PaintBox are at best cumulative of this aspect of the '776 patent disclosure. *See Rolls-Royce*, 800 F. 2d at 1107.

3. Storage Of A Reduced Size Image To Disk Using Only The Memory Corresponding To The Reduced Size Image

(a) Storage Of A Reduced Size Image To Disk Using Only The Memory Corresponding To The Reduced Size Image Was Used To Distinguish The DLS6000 Described In The Boyd Article

Mr. Taylor finally asserts

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When Ampex's statements are viewed in their entirety, there can

be no dispute that those statements were made in the context of distinguishing the Boyd article:

> The Boyd publication discloses a system for the storage and retrieval of video image frames. A particular frame may be retrieved from the storage disk, reduced, made part of a composite frame and stored back to the disk, but the new frame stored back to the disk will be full size, although it may contain a reduced image. The Boyd publication does not teach the storing in an image store of both a full and reduced spatial resolution image frame. The Boyd publication only discloses the storing of full size images.... Hence, the Applicant respectfully submits that rewritten Claim 1 is structurally and functionally distinguishable over the Boyd publication.

(Zado Ex. 19, Paper 6, p. 6.) The Examiner in fact agreed with Ampex's understanding of the Boyd article as to the fact that the DLS6000, as disclosed in Boyd, could only store a resolution "image" in a block of memory capable of storing a full size image frame on the disc store. (Zado Ex. 19, Paper 11, p. 2.) In any event, the Examiner did not explicitly rely on this argument in reaching the determination that the inventions of the '121 patent, were as claimed, distinguishable from the Boyd article. Rather, the arguments that were ultimately successful in overcoming the Boyd article during the prosecution of the '121 patent application related to the automatic use of a size reducer to generate a reduced size image in response to the storage of a full size image in frame store, prior to storage of the full size image on disc store. (Zado Ex. 19, Paper 13, pp. 10-12, Paper 14, p. 4.)

(b) Storage Of A Reduced Size Image To Disk Using Only The Memory Corresponding To The Reduced Size Image Was Disclosed In Figure 19 Of The '776 Patent

The expert report of Mr. Taylor asserts

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As Mr. Taylor admitted in deposition, Figure 19 of the '776 patent also

explicitly discloses the ability to store a reduced size image on disk, consisting of only the data making up the reduced size image itself. (Zado Ex. 3, Taylor 4/28/06 Tr. p. 131, line 20 – p. 132, line 9.) This, even under Mr. Taylor's reading of this requirement, AVA and PaintBox are at best cumulative of this aspect of the '776 patent disclosure. *See Rolls-Royce*, 800 F.2d at 1107.

CONCLUSION

For the foregoing reason, Ampex requests that the Court grant Ampex's motion for summary judgment of no inequitable conduct for failure to disclose the Quantel DLS6000, the Quantel PaintBox, and the AVA systems.

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May 23, 2006

CERTIFICATE OF SERVICE

I, Julia Heaney, hereby certify that on May 31, 2006, I caused to be electronically filed the foregoing with the Clerk of the Court using CM/ECF, which will send notification of such filing(s) to the following:

Paul M. Lukoff, Esquire
David E. Brand, Esquire
Prickett, Jones & Elliott, P.A.

and that I caused copies to be served upon the following in the manner indicated:

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